The earliest medical use of the caduceus

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The caduceus is a symbol known to mankind for over four thousand years. Its earliest format was Babylonian and was a staff surmounted by two serpent heads representing the supreme sexual powers of the serpent[1] (Fig. 1). Over the centuries various artists have simplified or embellished its form (Figs. 2a, 2b). The present day caduceus consists of two serpents symmetrically entwined around a staff to the head of which is affixed a pair of wings with sometimes a pine cone or similar object on top. To the Greeks and Romans, as well as to us today, it represents the rod or wand of Hermes or Mercury and connotes that god's patronage of peace, trade, commerce and communication.

Medical historians have questioned the worthiness of the caduceus as a logo for the medical profession.[2] Its acceptance as such in many parts of the world, especially in the United States, resulted from an omission on the part of the United States Marine Service in 1856. At that time a symbol was required for non-combatant medical personnel in the field. The caduceus was selected for this role while the Surgeon-General's crest of 1818 designed for this purpose and showing the staff of Asklepios was ignored. The caduceus served well and in 1857 was adopted by the U.S. Army as the insignia for hospital stewards. In 1871 it became the symbol for the United States Public Health Service and in 1902 it became the badge of the United States Army Medical Corps.[3] As a result of such official use many developing medical organizations incorporated the caduceus into their crests and hence it became an emblem of medicine.

The Royal College of Physicians of London probably had an indirect influence in popularizing the caduceus as a medical symbol. John Caius, President of the College in 1556, presented to the college a "caduceus" to be carried by the President as an ensign of honour by which he would be distinguished from other Fellows on all important occasions such as the holding of Comitia and the delivery of lectures. This caduceus is a silver rod or sceptre 26 inches in length and 17 ounces in weight, bearing at its head the arms of the college, supported by four serpents placed at the corners. Dr. Caius, the designer of the "caduceus", stated that the silver rod indicated that the President should rule with gentleness and clemency, unlike those of olden time, who ruled with a rod of iron. The serpents, the symbols of prudence, teach the necessity of ruling prudently, while the arms of the college, placed on the summit, indicate that gentleness and prudence are the means by which the College is sustained (Fig. 3). A replica of this original "caduceus" was presented in 1954 to the American College of Physicians by the late Lord Brain and is used on similar occasions by the President of the American College of Physicians.[4]

In spite of this background, many authors cannot accept the caduceus as a substitute for the true medical symbol, namely, the staff of Asklepios (a single serpent entwined about a staff). This report describes medical usage of the caduceus in the third century

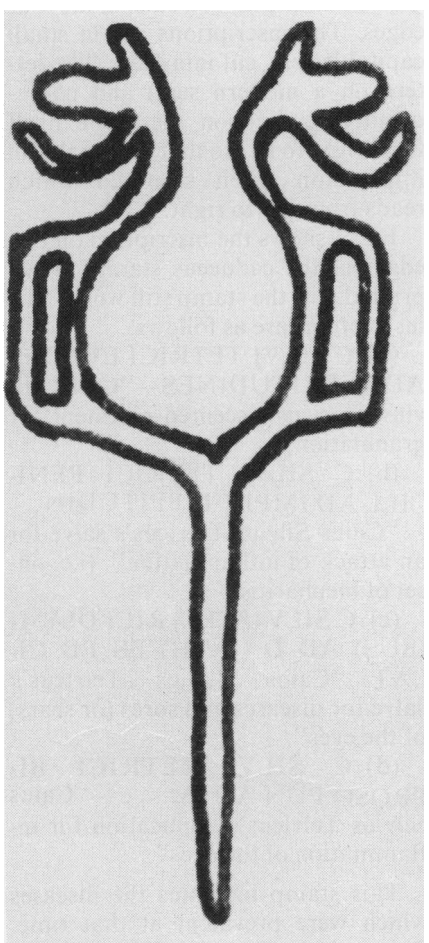

FIG. 1—The earliest type of caduceus as found on Babylonian cylinder seals. This shows the heads of a male and female serpent attached to a single body. This sexual symbol was held in the hand of the mother goddess Ishtar.

FIG. 2a—A 3rd century Roman coin, contemporary to the oculist's stamp, showing the simplified "mirror image 3" caduceus.

Fig. 2b—An 18th century commercial trade token showing an embellished caduceus similar to that used by today's medical societies.

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A.D. and may surprise present-day Asclepian purists.

Accession number 12,572 in the Guildhall Museum, London, is an oculist's stamp on which are inscribed many caducei. This artefact was excavated in 1931 from 15 feet below street level at 129-130 Upper Thames Street in the City of London. The find attracted the attention of the popular press and it was described in the Daily Telegraph of July 31, 1931. The stamp received notice in the Antiquaries Journal of 1932 when the caducei were not detected but were described as a curious design like a cross.[5] The artefact survived the bombing and burning of the Guildhall in World War II and, more amazing, it survived the museum's 20 years of temporary quarters in the Royal Exchange! It is at present displayed in the new temporary museum in Barbican, City of London.

Oculists' stamps are of great interest to medical historians. Approximately 200 are known to exist and they have been found mostly in Celtic areas, namely Gaul, Germany and Britain. Eye diseases were common in the Roman world and many effective remedies were developed. For convenience, medicaments were dispensed in a solid state. The ingredients of various preparations were hardened with gums or some other viscid substance and were made into solid sticks which before drying were circumscribed with the name of the medical practitioner, the name of the special medicine or medical formula and the disease for which the medicine was to be used.[6] This ancient labelling conforms to present-day dispensing practice. For use, pieces of the stick were broken off and mixed in a mortar with oil, honey, butter or egg until an ointment of satisfactory consistence was formed.

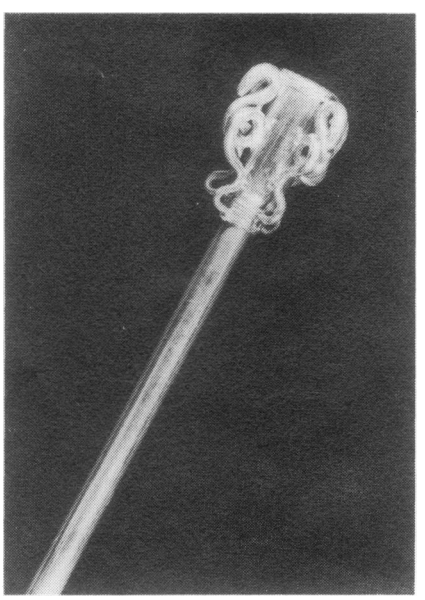

FIG. 3—Top detail of the serpents on "the caduceus" or the badge of distinction for the President of the Royal College of Physicians, London (1556). (Photograph kindly supplied by the College).

FIG. 4—Oculist's stamp showing inscriptions on the edge and caducei scratched onto the top surface. (Photograph supplied by Guildhall Museum, London).

The method of inscribing oculists' sticks was simplified by the use of special oculists' stamps made from steatite or greenish schist. These stamps are square or oblong blocks with an inscription on each of the four edges. The inscriptions are in small capital letters, cut intagliate (like letters on a modern seal) and consequently reading on the stone itself from right to left so that they make an impression when stamped which reads from left to right.

Fig. 4 shows the inscription on two edges of the caduceus stamp. When printed out (the stamp still works) the inscriptions are as follows:

(a) C SILVI TETRICI EVODES AD ASPRITUDINES—"Caius Silvius Tetricus's scented ointment for granulations".

(b) C SILVI TETRICI PENICILL AD IMPET LIPPITUDIN —"Caius Silvius Tetricus's salve for an attack of inflammation". (i.e. onset of blepharitis).

(c) C SILV (I TET) RICI DIAMI (SUS) AD D (IATH) ES ED CICAT—"Caius Silvius Tetricus's salve for diseases and sores (or scars) of the eyes".

(d) C SILVI TETRICI BIPROSO PUN AD IM . . . —"Caius Silvius Tetricus's application for inflammation of the eyes".

This stamp indicates the diseases which were prevalent at that time. Side (c) is the only one giving a clue to the type of medicine used; "DIAMI" (SUS) is the collyrium diamysus which contained misy as its principal ingredient. This substance was a metallic vitriolic used by the ancients as a

stimulant and escharotic; it is believed to have contained ferrous and copper sulfate.

The uniqueness to medical history of the Guildhall stamp relates to the caducei inscribed on the top and bottom surfaces. On the top surface are four lightly scratched caducei joined at the centre to form a cross (Fig. 5a). The bottom surface shows two completed and two partial caducei (Fig. 5b). These caducei are of the "reverse 3 type" frequently used in ancient times (Fig. 2). The contrast between them and the professional lettering on the edge of the inscription suggests that Caius Silvius was as economically minded as today's physician. He did not wish to pay for unnecessary professional lettering when he himself or some less skilled person could scratch the caducei shown. The Guildhall oculist's stamp is the earliest identified archeological evidence for an association between the caduceus and Medicine.

Why was the caduceus used on this stamp? Was it used on other oculists' stamps? The first question can be answered here but the second question requires a pilgrimage to the museums of Europe.

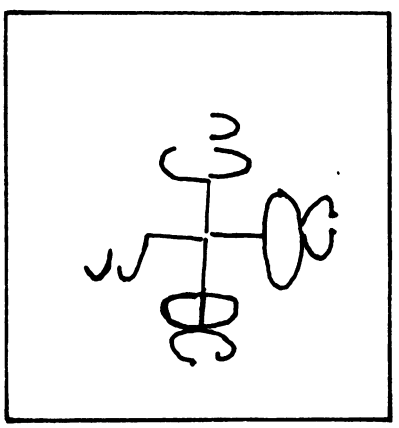

FIG. 5a—Sketches of caducei on top surface of stamp (actual size). (By H. P. A. Chapman, Guildhall Museum).

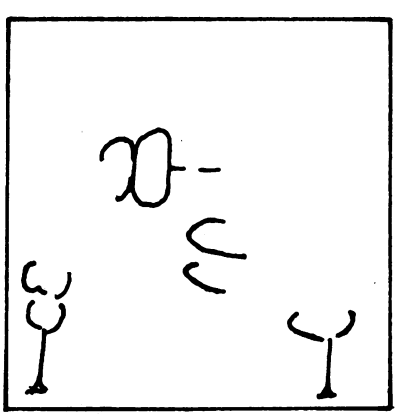

FIG. 5b—Sketches of caducei on bottom of stamp (actual size). (By H. P. A. Chapman).

A medieval alchemist or a student of the history of chemistry would suggest that the caduceus was used because the various preparations of Caius Silvius Tetricus contained quicksilver or mercury. This element had been symbolized by the caduceus for many centuries. Such an explanation would delight our more senior medical colleagues who remember prescribing yellow oxide of mercury eye ointments. Unfortunately there is no evidence that the caduceus was used as a chemical symbol in the third century.

An alternative explanation has no link with Hermes (Mercury) or the other gods occasionally associated with the caduceus. Hermes had some medical roles in that he did assist in conducting the dead to the underworld and also received some credit for relieving plagues and epidemics in Asia Minor. These exploits do not seem à propos to Londinium of the third century.

In ancient history the caduceus began as a phallic symbol and ended as a rod symbolic of Mercury. At the midpoint of its history, Homer (circa 900 B.C.) described the Greek caduceus as being made from gold and possessing the ability to charm the eyes of men.[7] It is probably in this role that the third century London oculist used the caduceus on his medication stamp. If other oculist stamps do not contain a caduceus, then it is likely that Tetricus was a fan of Homer's and added a little extra magic and faith to his preparations.

It is ironical that Homer should supply the explanation for the earliest medical use of the caduceus — his Iliad gives the earliest reference to Asklepios.[8] This association should allow some degree of respectability to the caduceus among modern day Asclepiads. Its role, of course, should be restricted to the oculists' field and the staff of Asklepios should remain as the true traditional logo for the profession.

The author acknowledges the encouragement and assistance of Mr. H. P. A. Chapman, Guildhall Museum, London. Mr. Chapman kindly made the sketches shown in Figs. 5a and 5b and the Corporation of London supplied the photograph shown in Fig. 4.

The author wishes to thank Dr. Charles Newman, Harveian Librarian of the Royal College of Physicians, London, for information on the caduceus of the College and the College for supplying the photograph in Fig. 3.

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